



# **RHIC & AGS USERS' EXECUTIVE COMMITTEE**

Friday Feb 14, 2003

ASAP Lounge 11:45 to 1:30

Dial in connection: 631-344-6363

Next Meeting: Friday, Mar 14 11:45-1:30

# Agenda Items

- Tour of the ASAP Lounge - Thanks to the ASAP folks!
- Report on new BNL Director
- Update on the budget and UEC letter writing campaign: John Hill
- The budget process, how it worked (or didn't), the result, & how it affects BNL: comments from Derek Lowenstein and Tom Kirk
- Budget Summary: Rich Seto
- Annual Users' Meeting: Brant/Vicki
- Update on Quality of Life: Brant Johnson
- Update on Thesis Award: Susan White-DePace
- Report on The U.S. Department of Energy Office of Science Strategic Plan Workshop: Rich

# Timeline

- Jan 10
  - UEC meeting - bosses give warning - CR for rest of year possible
- Jan 13
  - I call Kovar - he confirms problem - Derek says at CR level we can last till Jan 31
  - Folks in the biomedical sciences start writing campaign
  - Some serious skepticism from users as to the seriousness of the situation - and whether we should alert users because of possible demoralization of users
- Jan 14
  - Emergency UEC meeting - attended by lots of people (many thanks)
    - We decide to go ahead with a letter writing campaign
  - An email goes out to various "bosses" to enlist their support - we get it
- Jan 15-17
  - After hard work from John and Susan - a letter is prepared
    - Lots of help from Peter Bond, Tom Ludlam and many others
- Jan 17
  - Email goes to users, Web site is up- the letter writing starts



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January 17, 2003

## SAMPLE LETTER

Dear :

As a member of the RHIC & AGS Users' Executive Committee at Brookhaven National Laboratory (BNL), we represent 1500 scientists who conduct nuclear and high-energy physics experiments using BNL's research facilities.

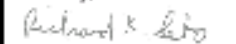
We respectfully urge you to do what you can to expedite the completion of the FY 2003 appropriations process. If the FY 2003 budget is not approved before the end of January, the Relativistic Heavy Ion Collider (RHIC) facility at Brookhaven will have to shutdown on January 31<sup>st</sup>. The research done at this facility attempts to understand the processes by which the universe was born. The importance of this facility and its research was recently highlighted in the January 14<sup>th</sup> issue of The New York Times.

The President's budget for FY 2003 includes an increment of funds to provide for the operation of the RHIC facility now that the construction era is over. We urge you to support this budget because if the laboratory is forced to operate on the FY 2002 budget levels, it will mean that we cannot run the facility for a scientifically significant period of time. Current estimates are that the scientific run will be as short as 3 weeks (instead of 15 weeks) and such a short run plan would be very harmful to the program here at (your institution).

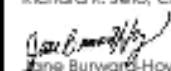
Withdrawal from this important investment at this critical time not only jeopardizes current research, but also undermines the existing federal investment in the physical sciences. Eighty graduate students working at the RHIC facility towards their Ph.D. would be adversely affected. This would send a very troubling message to American students and to Universities who are trying to recruit the next generation scientists and engineers into the field of physical sciences.

The scientific community is deeply grateful for the bipartisan support Congress has demonstrated for the DOE's Office of Science over the last few years. Your efforts to expedite the FY 2003 Energy & Water Appropriations Bill would be greatly appreciated.

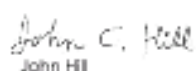
Sincerely,

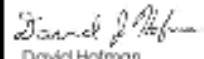
  
Richard K. Seto, Chairman

  
Victoria Greene, Chair Elect

  
Jane Burward-Hoy

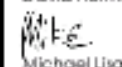
  
Jack Engelage

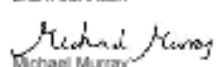
  
John Hill

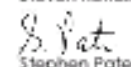
  
David Hofman

  
Brant Johnson

  
Steven Kettell

  
Michael Lisa

  
Michael Murray

  
Stephen Pate

  
Marcelo Vazquez

  
Peter Yamin

cc: S. Aronson, T. Kirk, D. Lowerstein, R. Orbach, P. Paul, P. Rosen

# UEC letter

- Faxed to key legislators
- Senators
  - Charles E. Schumer(D-Y)
  - Hillary Rodham Clinton(D-Y)
  - Pete V. Domenici(R-Y)
  - William Frist(R-Y)
- Congressman
  - Timothy Bishop (D-Y)
  - James Nussle(R-Y)
  - Sherwood L. Boehlert(R-Y)
  - John E. Sweeney(R-Y)
  - James T. Walsh(R-Y)
  - Peter J. Visclosky(D-Y)
  - Rodney Frelinghuysen(R-Y)
  - David L. Hobson(D-Y)
  - Rush Holt(D-Y)
  - Steve Israel(D-Y)
- Did we miss any??
  - Young, Stevens

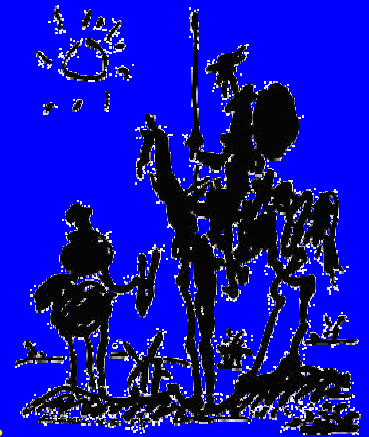
- Jan 14-20
  - People make contacts - Lobbyists: Columbia, Vanderbilt, UCR; APS PR folks
    - Lobbyists/ generally think that a budget will pass, I.e. talk of CR for rest of year has disappeared
    - We learn idea of omnibus bill, I.e. senate takes CR - adds all spending bills to it sends it to House
    - Could be up to a 3% across the board cut
- Jan 22
  - Reminder to users to write with info of possible omnibus bill and 3% cut
- Jan 24
  - I make a contact with the science staffer in Calvert's office (my local congressman) She proves to be my best source. Senate passes omnibus bill Another reminder goes out to users. Calvert's staffer thinks things might be done by the 7th
- Jan 28
  - House agrees to send Omnibus Bill to Conference committee
  - CR to the 7th
  - BNL bosses agree they can hold out for the first 2 weeks in Feb.
  - BNL Lobbyist tell us that another CR may be needed till the 14th as Conference Committee will not be done by Jan 31st
- Feb 3rd
  - An email sent to users to appraise them of situation and to give hope. (I get comments on drafts of the message warning me to be very careful)

# The past week

- Feb 5
  - Another CR till the 20<sup>th</sup> (with congress taking a week break on the 17<sup>th</sup> for a week, I get worried)
- Feb 7th
  - Calvert's staffer tells me that hopefully a meeting on the 10<sup>th</sup> of the Conference committee will finalize things. There is an attempt to reduce the overall cut from 3% to <1%.
- Feb 11
  - Its Tuesday morning - nothing from the Conference yet. Staffer tells me to cross fingers. There is a Time meeting where users are warned about possible shutdown this weekend.
- Feb 12
  - (morning) I have a not-so encouraging conversation/and read the NYT
  - (evening) It makes it out of conference - the cut is 0.6%
- Feb 13
  - 5:12 pm - house starts to debate HJRes-2
  - 6:40 pm - motion to send the budget back to committee fails 193-226
  - 6:58 pm - HJRes-2 passes the House 338-83
  - 10:14 pm - Senate passes HJR-2 76-20

# The budget and our writing campaign

- Did we do the right things?
- Were we effective?
- What should we do differently next time?
  - Some early skepticism
    - Worry about demoralizing users
  - Lots of support from Lab
  - Support from Expt's via spokespeople
  - Appreciated speed of response
- This has been a good civics lesson for many of us
  - Science has no "entitlement" any longer
  - Must have a culture of scientists aware of the rest of the world



# DOE Office of Science Strategic Plan

- DOE SC (Orbach) would like to plan out large facilities (>\$50M) next ~10-20 years
- 1 Day workshop (Jan 16)
- A variety of scientists
  - advisory committees+staffers+OMB+
  - Physicists of all sorts, biologists, mathematicians, computer scientists, chemists,...
- Schedule
  - Opening by Orbach+ other DOE folks
  - Break out sessions (one led by PB)
  - Summary sessions
  - Committee now writes the report



# Introductory talks

- Intro by Orbach and Vallerio (DOE office of planning)
- Orbach's talk was highlight for me
  - Crucial element in setting priorities is quality of science (over application, budgets,...)
  - plan would chart a course for the Office of Science, and will be utilized by the White House, Congress, and the OMB
  - DOE supports ~40% of physical sciences
  - DOE strengths
    - Large facilities
    - Willingness to take risks for the long term
  - Issues
    - Severe budget pressures
    - Lack of US students in physical sciences
    - Performance measures

# Breakout sessions

- Science

- We were asked - Are there things we have missed or new ways of looking at things
- Computing, Basic Energy Sciences, Biology & Environmental Research , Nuclear, High Energy, Fusion - Basic Themes..
  - Not much (ex. Piere Odonne)
- Performance Measures
  - Problem in OMB review
  - OMB (3 numbers)
  - BES (push back)

# Goal 1. Compelling Science... Possible Overarching Themes/Objectives

- **Designing the Future....from Single Atoms:** *Realize our destiny to master energy, matter and physical processes...lead revolutions in nano-science, chemical transformations, and complex design.*
- **Holding the Power of a Star on Earth:** *Take the next bold step in fusion science, testing whether fusion power is an achievable goal*
- **Search for the Beginning of Time:** Explore new dimensions and reveal the mysterious interactions of energy, matter, space, and time, spanning scales from the infinitesimally small to the infinitely large.
- **Harnessing the Power of our Living World:** Realize discoveries at the nexus of the physical and life sciences...from the molecular machines of life to global change... advancing foundations for clean energy, a clean environment, and improved human health.
- **Computation Beyond the Speed of Light:** Empowering a new frontier in scientific discovery.

# Candidate Strategic Themes and Tactics for High Energy & Nuclear Physics

## • **Fundamentals of matter, energy, space, and time:** *The Search for Unification*

- Test and extend the Standard Model
- Explore the energy frontier
- Study neutrinos, with and without accelerators
- Investigate quark flavors

## • **Fundamentals of matter, energy, space, and time:**

### *The Search for Extra Dimensions*

- Develop string theories and supersymmetry
- Search for supersymmetric partners
- Search for new dimensions, test gravity

## • **Structure of Nuclear Matter**

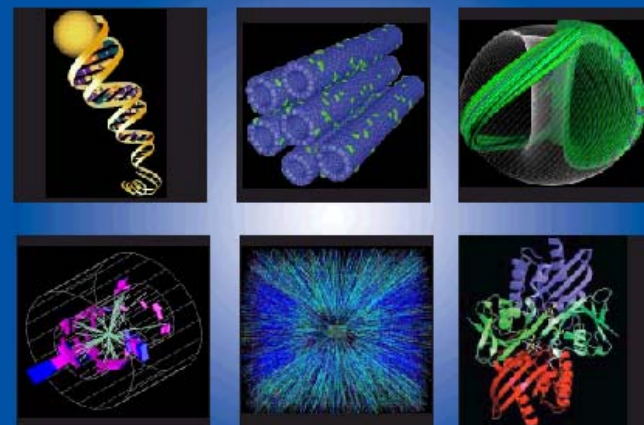
- Probe the nucleon and QCD
- Searches for gluonic states
- Investigate nuclei at the limits of stability

## • **Cosmic Connections**

- Investigate antimatter in the universe
- Search for quark-gluon plasma
- Search for dark matter
- Investigate dark energy
- Study nuclear astrophysics and nucleosynthesis
- Investigate ultra-high-energy cosmic rays



### *Basic Science for the Nation's Future*



# Breakout sessions

- Facilities (I attended this one)
  - Convener Devon Strait of DOE
- Management
- Scientific Theme and Vision



# Facilities under consideration

- Spallation Neutron Source 2-4MW Upgrade (ORNL)
- Spallation Neutron Source Second Target Station (ORNL)
- High-Flux Isotope Reactor Second Cold Source and Guide Hall (ORNL)
- National Synchrotron Light Source Upgrade (BNL)
- Energy Recovery Linac (ERL)
- Femtosecond X-ray Source
- Linac Coherent Light Source (SLAC)
- Advanced Light Source Upgrade (LBNL)
- Advanced Photon Source Upgrade (ANL)
- 1 Angstrom Free Electron Laser Major Use Facility
- Transmission Electron Achromatic Microscope
- National Energy Research Scientific Computing Center
- Energy Sciences Network (ESnet)
- Center for Computational Sciences Upgrade
- UltraScale Scientific Computing Capability (USSCC)
- National Compact Stellarator Experiment (NCSX)
- Next-Step Spherical Torus Experiment (NSST)
- International Thermonuclear Experiment Reactor (ITER)
- International Fusion Materials Irradiation Facility (IFMIF)
- Component Test Facility (CTF)
- Integrated Beam Experiment (IBX)
- Integrated Research Experiment (IRE)
- Inertial Engineering Test Facility (IETF)
- Linear Collider
- Super Neutrino Beam (Proton Driver)
- Muon Storage Ring/Neutrino Factory
- Off-Axis Neutrino Detector
- SuperNova Acceleration Probe (SNAP)
- Proton Decay Detector
- Double-Beta Detector (Liquid Xenon)
- Super B-Factory
- BTeV
- Charged Kaons at the Main Injector (CKM)
- LHC Detector Upgrade
- LHC Accelerator Upgrade I
- LHC Accelerator Upgrade II
- Rare Isotope Accelerator
- CEBAF 12 GeV Upgrade at Jefferson Laboratory
- Gamma Ray Energy Tracking Array (GRETA)
- RHIC IIeRHIC
- Neutrino/Double-Beta Decay Experiment
- CEBAF II Upgrade
- Facility for the Production and Characterization of Proteins: GTL Facility I
- Facility for Whole Proteome Analysis: GTL Facility II
- Facility for the Production, Characterization, and Imaging of Exceptional Proteins and Molecular Machines: GTL Facility III
- Facility for Analysis and Modeling of Cellular Systems: GTL Facility IV

# What Next

- Each Directorate (sub field) received a "charge"
  - To rate proposed facilities
    - Science
    - Readiness
  - For NSAC (RIA, RHICII, Underground Lab, Jlab upgrade, Greta...)
    - Subcommittee formed - meets next week
      - Presentations from many folks including
        - Tim Hallman (RHIC 2, spin) Richard Milner-eRHIC, Thomas Roser - RHIC2/eRHIC readiness
      - Subcommittee recommendations to NSAC March 6
      - NSAC reports to DOE in March